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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,204	01/15/2002	William C. Nowlin	017516-001320US	9117

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EXAMINER

SHAW, SHAWNA JEANNINE

ART UNIT PAPER NUMBER

3737

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/052,204	Applicant(s) NOWLIN ET AL.	
	Examiner Shawna J. Shaw	Art Unit 3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 1/15/02, 3/25/02, 5/8/02.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 May 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>03252002</u>  | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION*****Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “selectively activatable repositioning system” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

2. The disclosure is objected to because of the following informalities: Text appears to be missing on page 13 line 30. Appropriate correction is required.

***Claim Objections***

3. Claim 6 is objected to because of the following informalities: It is unclear how the repositioning system is configured to *realign* the master control device with the image capture device as it appears this is done by the controller and associated software. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 6 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not adequately teach how the repositioning system is configured to *realign* the master control device with the image capture device.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The scope of "selectively activatable repositioning system" cannot be clearly ascertained by the disclosure. For one thing, although the concept is mentioned in the disclosure, it is unclear from the drawings and the specification what actually constitutes this system (nothing in the drawings has been specifically designated to correspond to the "selectively activatable repositioning system"). Paragraph [0014] indicates that the repositioning system preferably comprises an "input device" ideally mounted to the manipulator and that the input device may be configured so that the surgical instrument is movable while the input device is held. However, various types of "input devices" (such as foot pedals, voice control input, finger buttons) are disclosed throughout the specification and it is not clear which do, and do not, correspond to the "selectively activatable repositioning system." For example, do joystick (12) in figure 1, foot pedal (208b) in figure 2 and repositioning button (358) on arm (302A) in figure 9A all belong to a "selectively activatable repositioning system?" Finally, it is not clear from the specification whether the "selectively activatable repositioning system" constitutes an input device, surgical manipulator arm, software associated with the controller, or a combination of all these.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Blumenkranz et al. '200.

Regarding claims 1, 3 and 5, Blumenkranz et al. teach a robotic surgical system including a surgical manipulator system (50) movably supporting at least one surgical instrument (54), such as an image capture device (col. 5 lines 57, 58, claim 25), in a plurality of degrees of freedom (fig. 2A); a master controller workstation and display (150); and a selectively activatable repositioning system (col. 3 lines 4-24, col. 10 lines 45-49). Regarding claim 2, Blumenkranz et al. disclose an input device (130) to enable movement of the manipulators.

Regarding claim 4, Blumenkranz et al. additionally teach a surgical tool (col. 5 lines 50-52). Regarding claim 6, Blumenkranz et al. teach realigning the master control with the image capture device after it has been moved by means of image transformations (col. 3 lines 25-32). Regarding claims 7 and 8, Blumenkranz et al. further disclose wherein brakes (124) inhibit rotational motion about joints (84) (col. 10 lines 30-44).

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7. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Funda et al. '984.

Regarding claims 1, 3, 5 and 6, Funda et al. teach a robotic surgical system including a surgical manipulator system movably supporting at least one surgical instrument, such as an image capture device (e.g., 241), in a plurality of degrees of freedom (figures 1 and 2); a master controller workstation and display operatively associated with the manipulator (243, 248, col. 8 line 58 – col. 9 line 4); and a selectively activatable repositioning system (comprised of both computer and manual control (col. 7 lines 15-21)) where the controller reestablishes operative association and alignment after movement of the instrument by means of image recognition and/or alignment with a target (col. 7 lines 30-50 and col. 11 lines 40-52). Regarding claim 2, Funda et al. teach an input device mounted on the manipulator structure (col. 6 lines 23-41). Regarding claim 4, Funda et al. additionally teach a surgical tool (col. 7 lines 15, 16, claim 6). Further regarding claims 7 and 8, Funda et al. disclose selectively locking, or inhibiting, movement of the image capture device in five degrees of freedom (including rotational motion  $\theta_z$ ) (col. 5 lines 1-7).

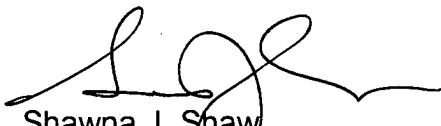
### **Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawna J. Shaw whose telephone number is (703) 308-2985. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's interim supervisors, Angela Sykes and Brian Casler can be reached at (703) 308-5181, and (703) 308-3552 respectively. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Shawna J. Shaw  
Primary Examiner  
Art Unit: 3737  
07/20/2004